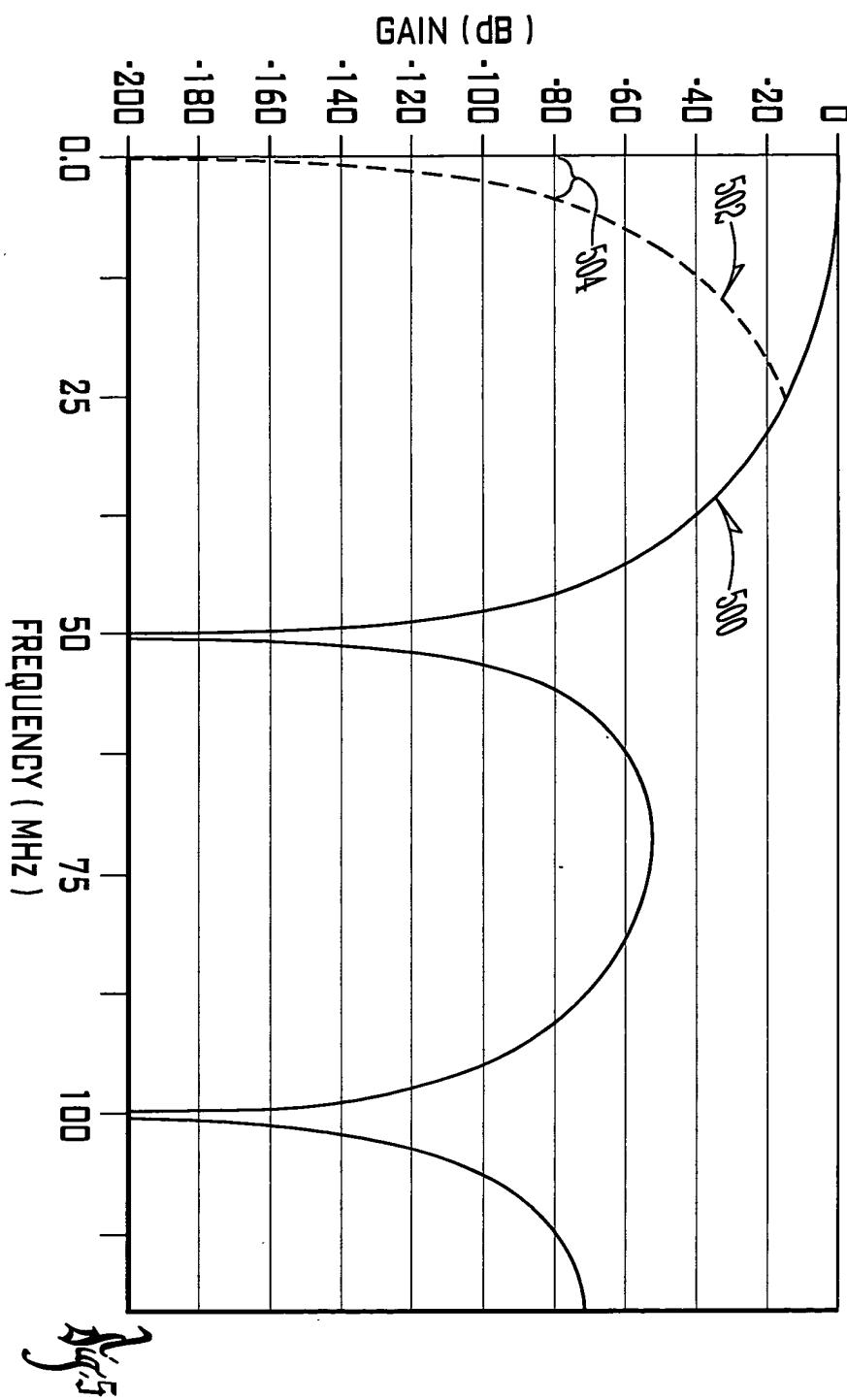
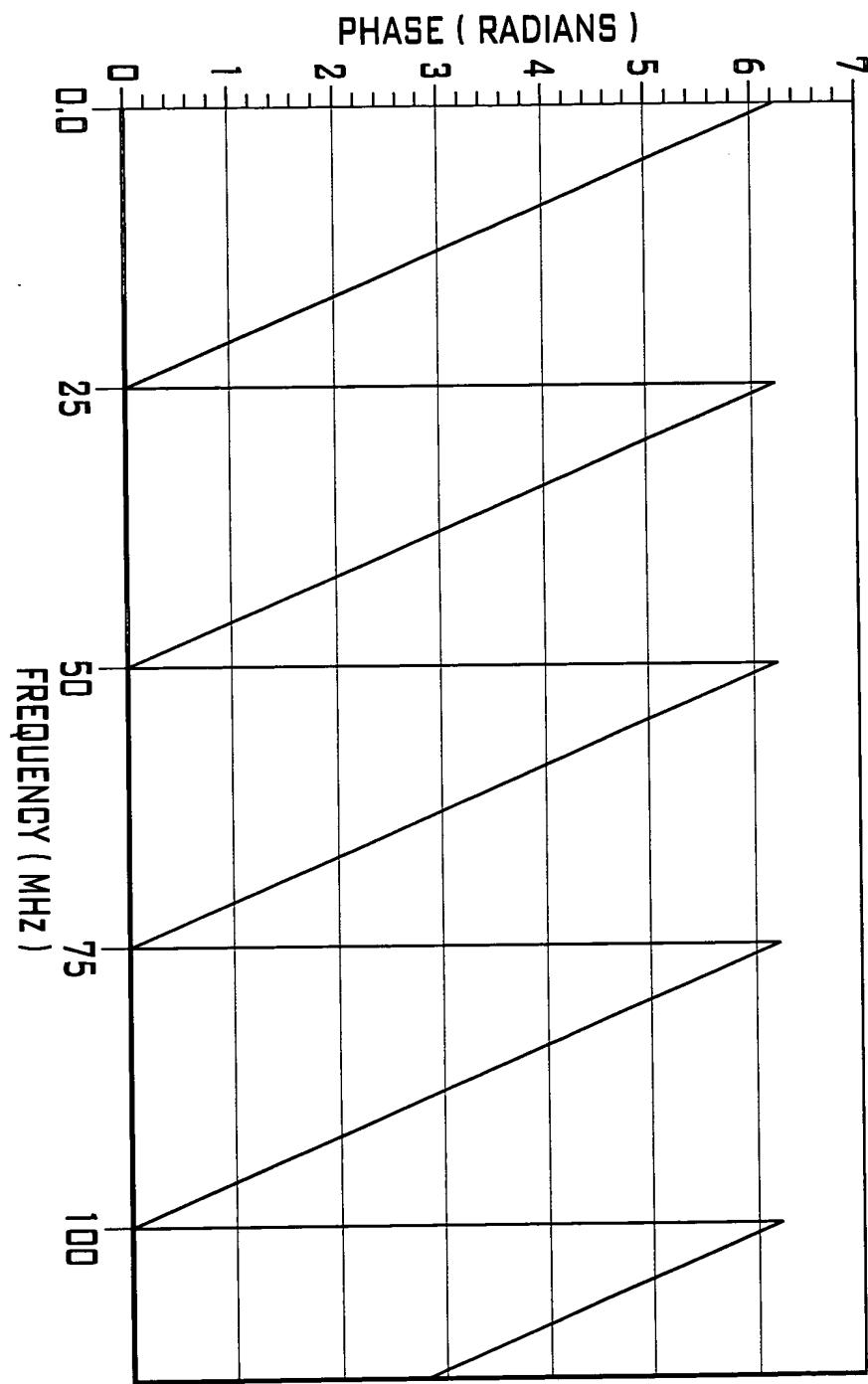
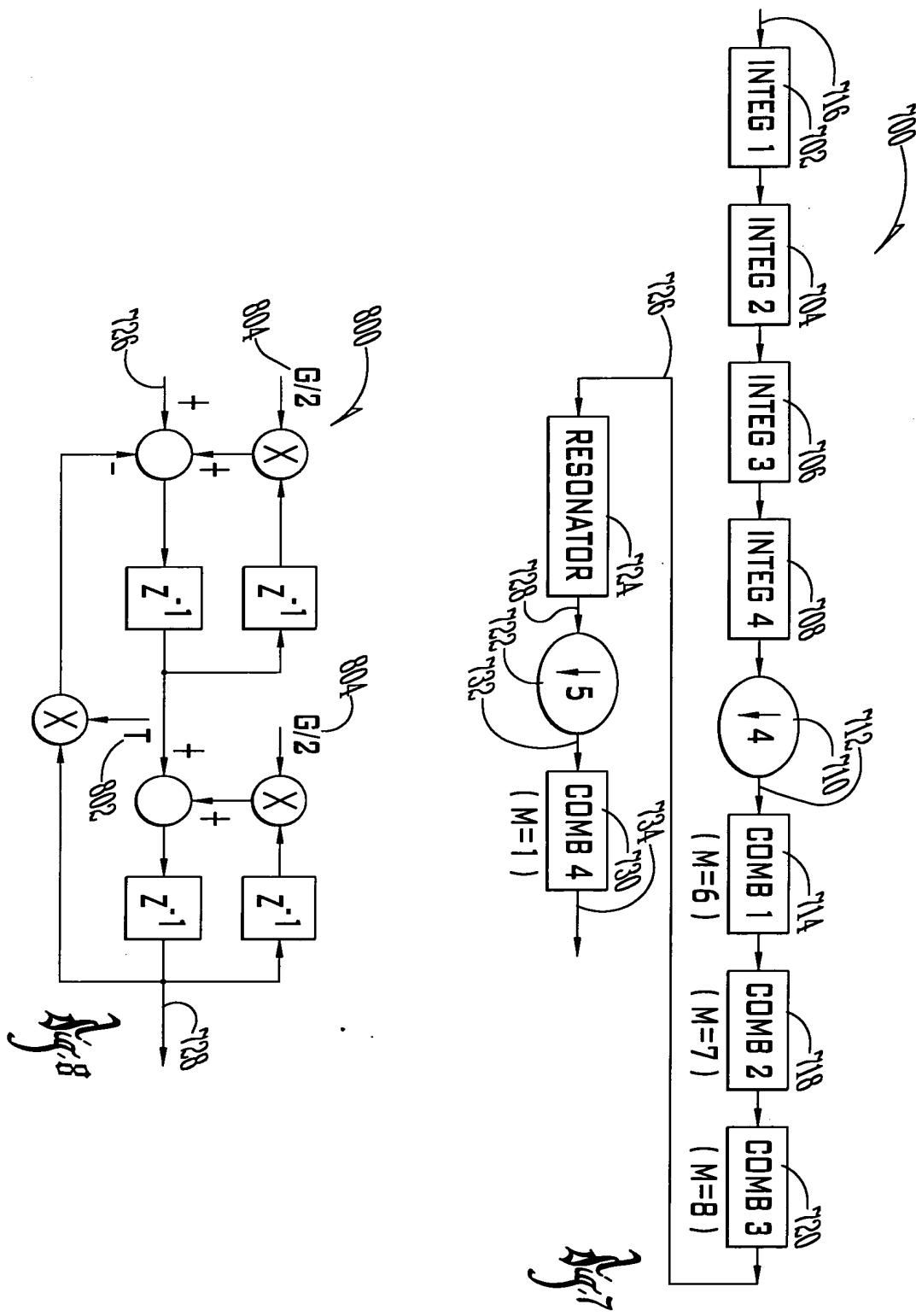


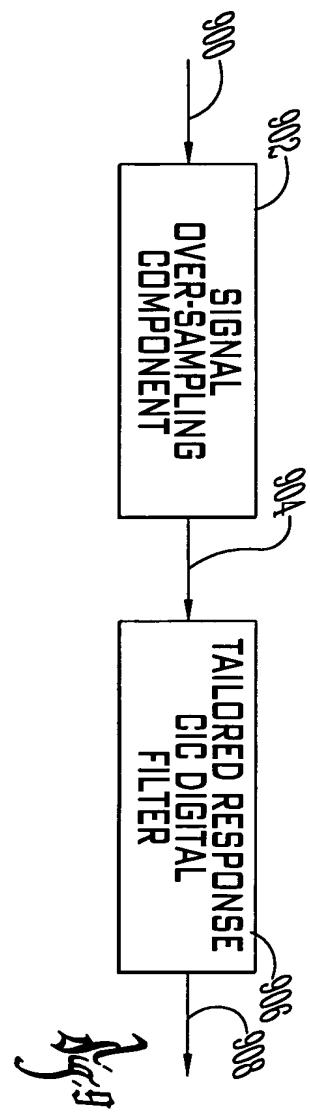
14

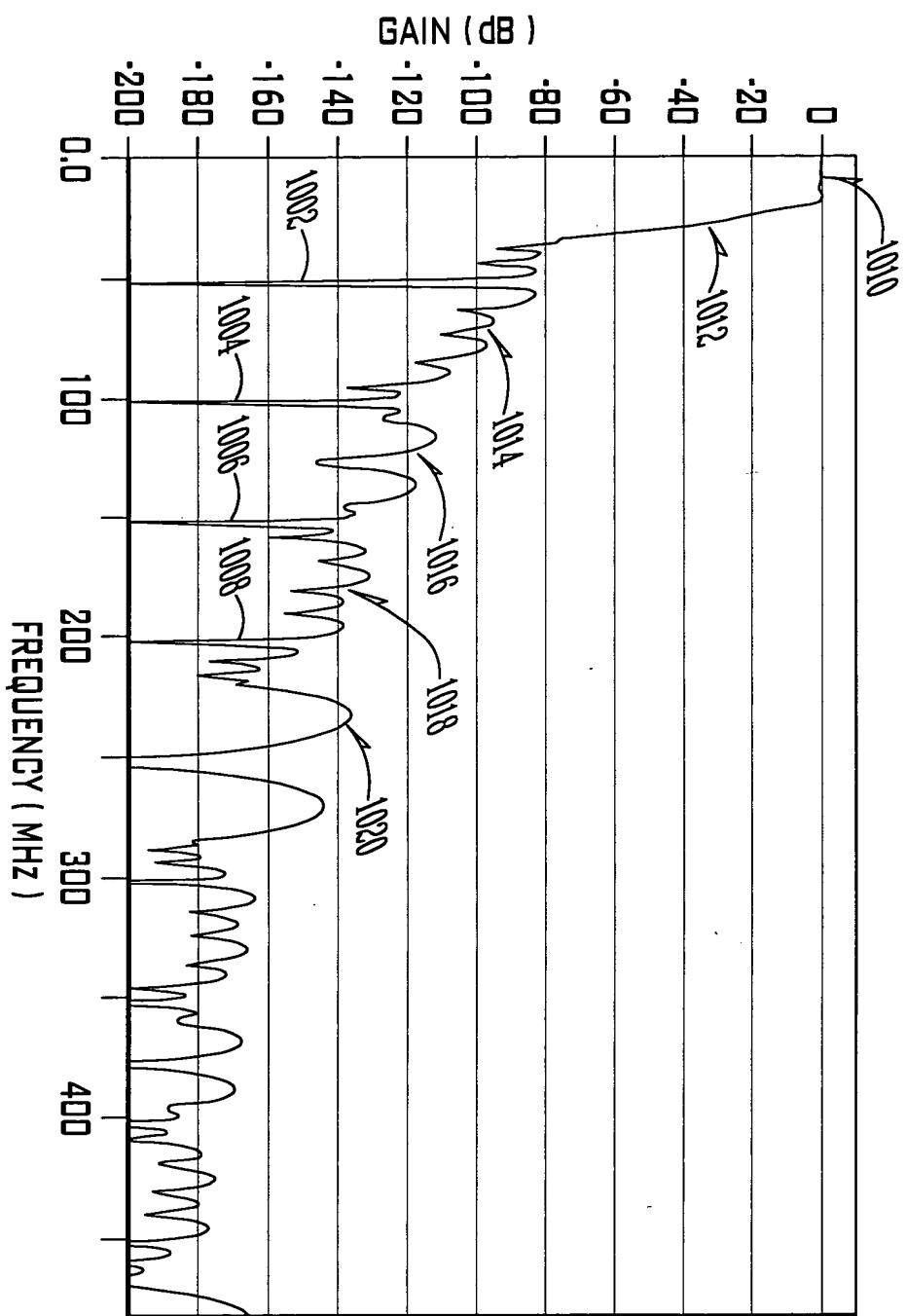




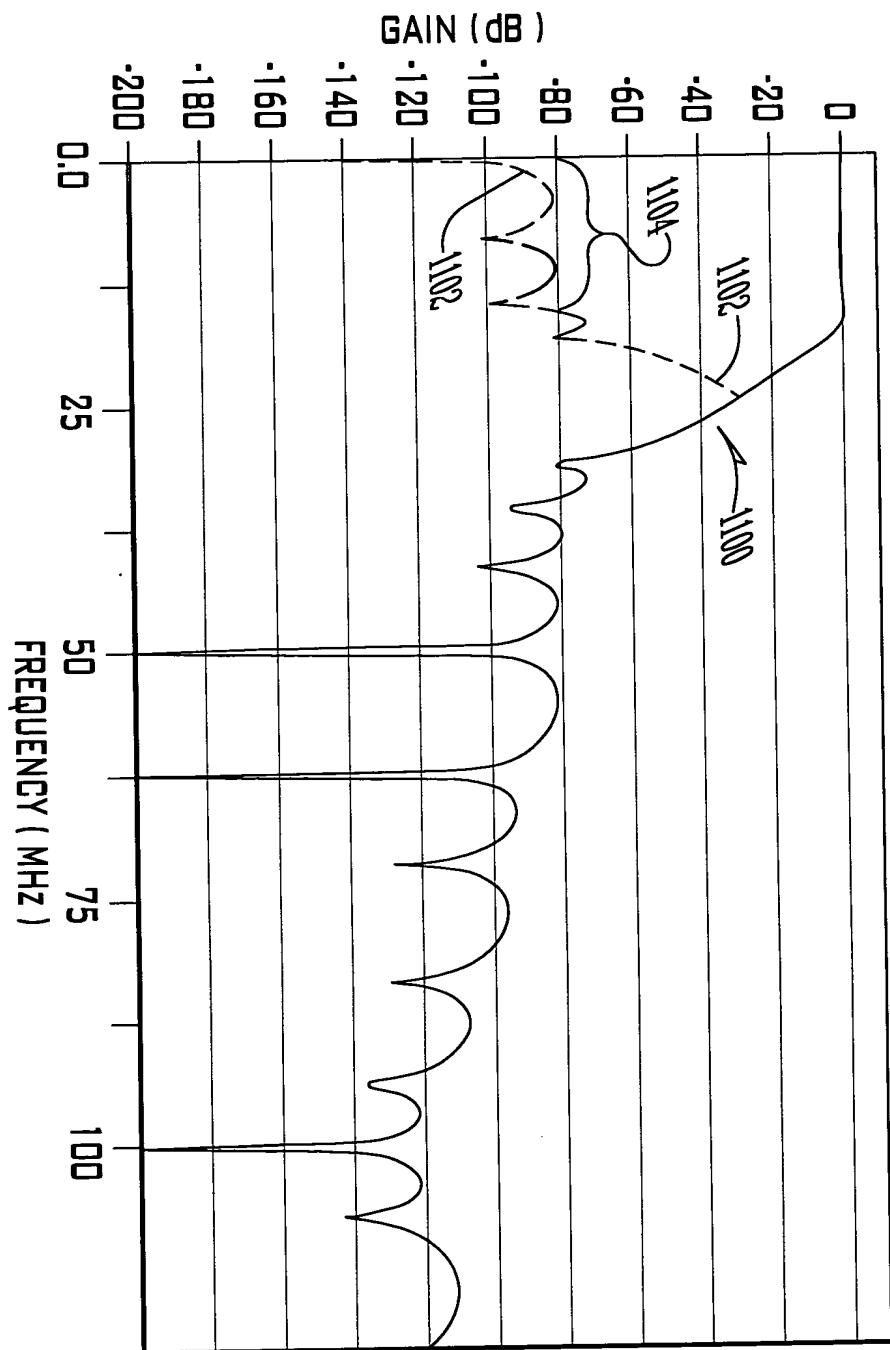
APPROVED	O.G. FIG.	BY	CLASS	SURGEON	DRAFSTMAN
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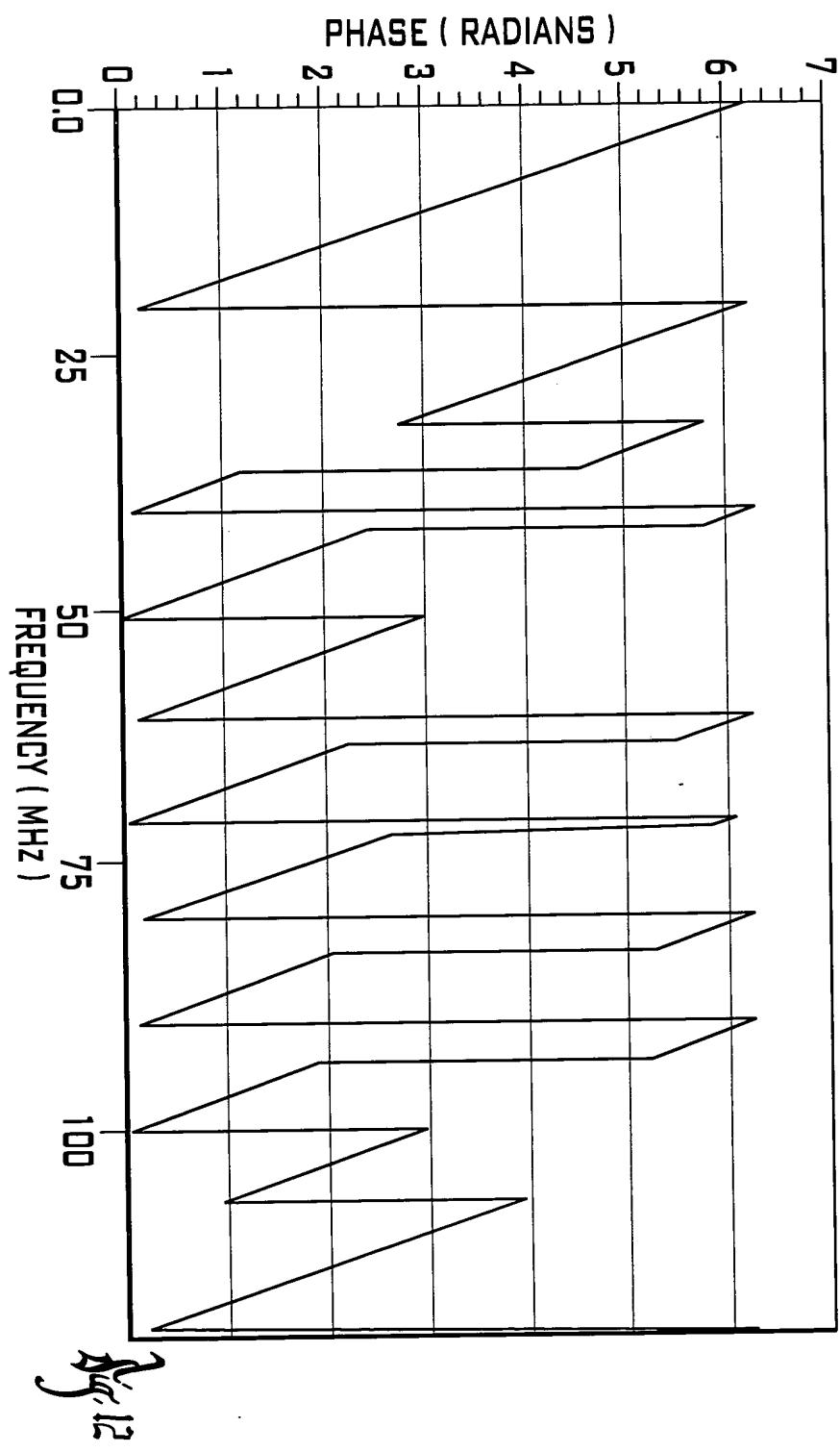


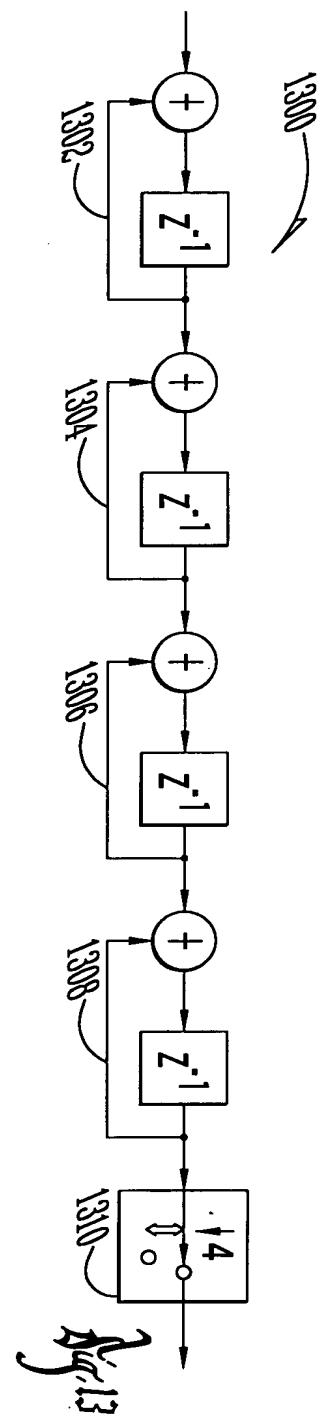
1001

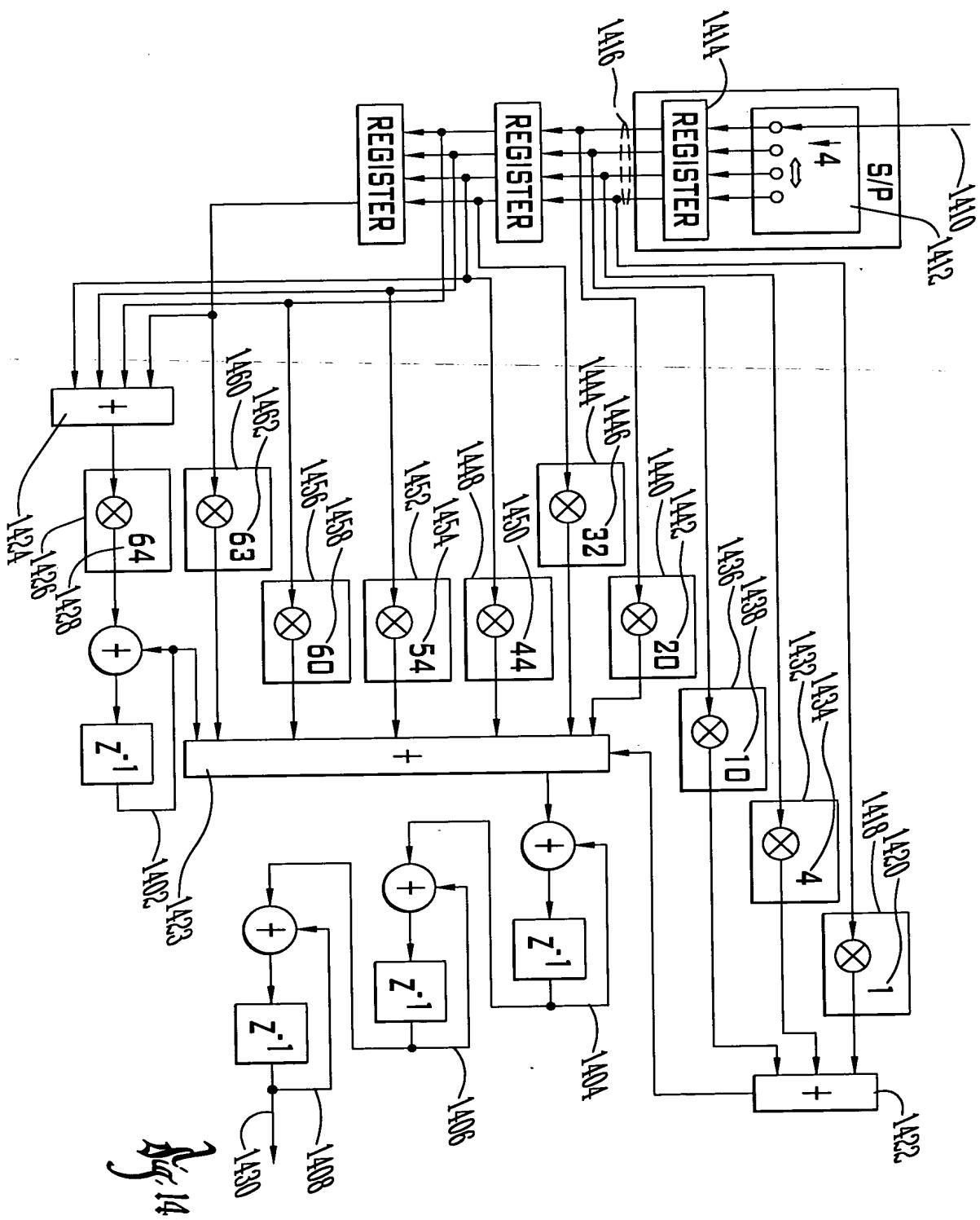


三

APP/C/ED	O.G. FIG.	BY	DRAFTSMAN
		CLASS	SUBCLASS







1 STAGES	$0, A, A+B, A+B+C, A+B+C+D, A+B+C+D+E, \dots$
2 STAGES	$0, 0, A, 2A+B, 3A+2B+C, 4A+3B+2C+D, 5A+4B+3C+2D+E, \dots$
3 STAGES	$0, 0, 0, A, 3A+B, 6A+3B+C, 10A+6B+3C+D, 15A+10B+6C+3D+E, \dots$
4 STAGES	$0, 0, 0, 0, A, 4A+B, 10A+4B+C, 20A+10B+4C+D, 35A+20B+10C+4D+E, \dots$
5 STAGES	$0, 0, 0, 0, 0, A, 5A+B, 15A+5B+C, 35A+15B+5C+D, 70A+35B+15C+5D+E, \dots$
6 STAGES	$0, 0, 0, 0, 0, 0, A, 6A+B, 21A+6B+C, 56A+21B+6C+D, 126A+56B+21C+6D+E, \dots$
7 STAGES	$0, 0, 0, 0, 0, 0, 0, A, 7A+B, 28A+7B+C, 84A+28B+7C+D, 210A+84B+28C+7D+E, \dots$
8 STAGES	$0, 0, 0, 0, 0, 0, 0, 0, A, 8A+B, 36A+8B+C, 120A+36B+8C+D, 330A+120B+36C+8D+E, \dots$

1500

1506 1503  
1502 1504

## STAGE N, OUTPUT M

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## STAGE N+1, OUTPUT M

```

graph TD
    A(( )) --> B(( ))
    B --> C(( ))
  
```

STAGE  $N+1$ , OUTPUT  $M+1$

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APPENDIX E	FIG. 3.3.	BY	CLASS	SUBCLASS	DRAFTSMAN
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1 STAGES	0, 1, 1, 1, 1, ...
2 STAGES	0, 0, 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, ...
3 STAGES	0, 0, 0, 1, 3, 6, 10, 15, 21, 28, 36, 45, 55, 66, 78, 91, 105, 120, 136, 153, 171, 190, 210, 231, 253, 276, 300, 325, 351, 378, 406, 435, 465, 496, 528, 561, 595, 630, 666, 703, 741, 780, 820, 861, 903, 946, 990, 1035, 1081, 1128, 1176, 1225, 1275, 1326, 1378, 1431, ...
4 STAGES	0, 0, 0, 0, 1, 4, 10, 20, 35, 56, 84, 120, 165, 220, 286, 364, 455, 560, 680, 816, 969, 1140, 1330, 1540, 1771, 2024, 2300, 2600, 2925, 3276, 3654, 4060, 4495, 4960, 5456, 5984, 6545, 7140, 7770, 8436, 9139, 9880, 10660, 11480, 12341, 13244, 14190, 15180, 16215, 17296, 18424, 19660, 20825, 22100, 23426, 24804, ...
5 STAGES	0, 0, 0, 0, 0, 1, 5, 15, 35, 70, 126, 210, 330, 495, 715, 1001, 1365, 1820, 2380, 3060, 3876, 4805, 5985, 7315, 8855, 10626, 12850, 14950, 17550, 20475, 23751, 27405, 31465, 35960, 40920, 46376, 5260, 58905, 66045, 73815, 82251, 91390, 101270, 111930, 12340, 135751, 148995, 163185, 178365, 194580, 211876, 230300, 249900, 270725, 292825, 316251, ...
6 STAGES	0, 0, 0, 0, 0, 1, 6, 21, 56, 126, 252, 462, 792, 1287, 2002, 3003, 4368, 6188, 8568, 11628, 15504, 20349, 26334, 33649, 42504, 5330, 65780, 80730, 98280, 118755, 142506, 169911, 20376, 25336, 278256, 324632, 376992, 435897, 501942, 575757, 658008, 749398, 850668, 962598, 1086008, 1221759, 1370754, 1533939, 1712304, 1906884, 2118760, 2349060, 2598660, 2869685, 3162510, ...
7 STAGES	0, 0, 0, 0, 0, 0, 1, 7, 28, 84, 210, 462, 924, 1716, 3003, 5005, 8008, 12376, 18564, 27132, 38760, 54264, 74613, 100947, 134596, 177100, 230230, 298010, 376740, 475020, 593775, 736281, 906192, 1107568, 1344904, 1623160, 1947792, 2324784, 2760681, 326263, 3838380, 4496388, 5245786, 6096454, 7059052, 8145060, 9366819, 1073753, 12271512, 13983816, 15890700, 18009460, 20358520, 2295480, 2582765, ...
8 STAGES	0, 0, 0, 0, 0, 0, 0, 1, 8, 36, 120, 330, 792, 1716, 3432, 6455, 11440, 19448, 31824, 50388, 77520, 116280, 170544, 245157, 346104, 480700, 657800, 888030, 1184040, 1560780, 2055800, 2629575, 3365886, 4272048, 5379616, 6724520, 8347680, 10295472, 12620256, 1580937, 18643560, 2248940, 26978328, 32224114, 38320568, 45379620, 53524680, 62891499, 73629072, 86900584, 99884400, 11575100, 135184560, 154143080, 17700560, ...

1100

APPR'D BY	O.G. FIG.	SUBCLASS	CLASS	DRAFTSMAN
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1800

STAGE 4	1, 35, 165, 455, 969, 1771, ...
STAGE 3	1, 34, 130, 290, 514, 802, ...
STAGE 2	1, 33, 96, 160, 224, 288, ...
STAGE 1	1, 32, 63, 64, 64, 64, ...

PATH 4:

1802

STAGE 4	4, 56, 220, 560, 1140, 2024, ...
STAGE 3	4, 52, 164, 340, 580, 884, ...
STAGE 2	4, 48, 112, 176, 240, 304, ...
STAGE 1	4, 44, 64, 64, 64, 64, ...

PATH 3:

STAGE 4	10, 84, 286, 680, 1330, 2300, ...
STAGE 3	10, 74, 202, 394, 650, 970, ...
STAGE 2	10, 64, 128, 192, 256, 320, ...
STAGE 1	10, 54, 64, 64, 64, 64, ...

PATH 2:

STAGE 4	20, 120, 364, 816, 1540, 2600, ...
STAGE 3	20, 100, 244, 452, 724, 1060, ...
STAGE 2	20, 80, 144, 208, 272, 336, ...
STAGE 1	20, 60, 64, 64, 64, 64, ...

1806

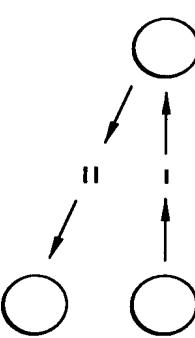
STAGE N, OUTPUT M

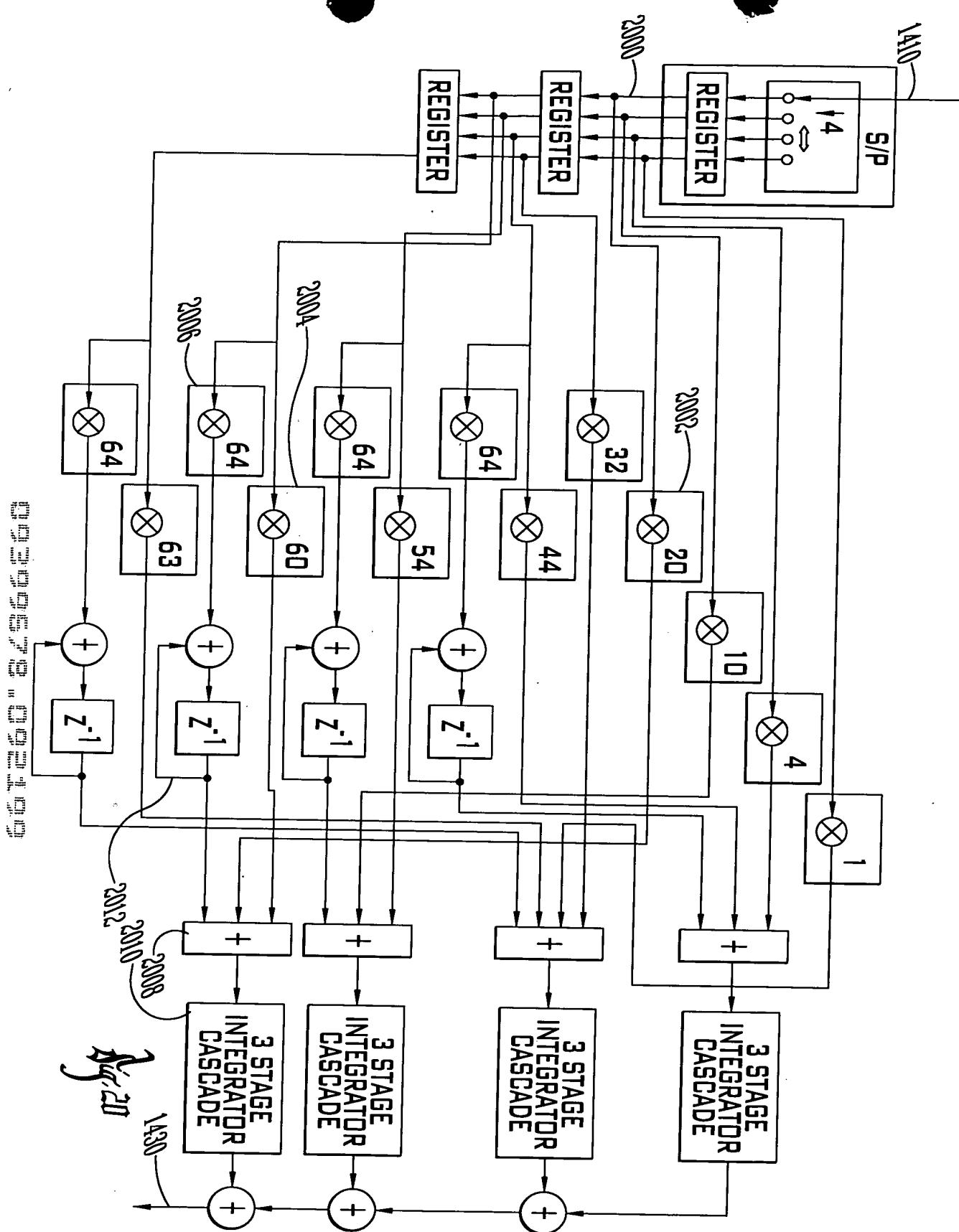
STAGE N-1, OUTPUT M+1

1807

STAGE N-1, OUTPUT M+1

1808





$$\begin{aligned}
& A, 4A+B, 10A+4B+C, \underline{20A+10B+4C+D}, 35A+20B+10C+40+E, 56A+35B+20C+10D+4E+F, 84A+56B+35C+20D \\
& +10E+4F+G, \underline{120A+84B+56C+35D+20E+10F+4G+H}, 165A+120B+84C+56D+35E+20F+0G+4H+I, 220A+165B \\
& +120C+84D+56E+35F+20G+10H+4I+J, 286A+220B+165C+120D+84E+56F+35G+20H+10I+4J+K, \underline{364A+286B} \\
& \underline{220C+165D+120E+84F+56G+35H+20I+10J+4K+L}, 455A+364B+286C+220D+165E+120F+84G+56H+35I+20J \\
& +10K+4L+M, 560A+455B+364C+286D+220E+165F+120G+84H+56I+35J+20K+10L+4M+N, 680A+560B+455C \\
& +364D+286E+220F+165G+120H+84I+56J+35K+20L+10M+4N+O, \underline{816A+680B+560C+455D+364E+286F+220G} \\
& +165H+120I+84J+56K+35L+20M+10N+40+P, ...
\end{aligned}$$

PATH 1:

20A, 120A+20E, 364A+120E+20I, 816A+364E+120I+20M, ...

10

PATH 3: 10B, 84B+10F, 286B+84F+10U, 680B+286F+84U+10N, ...

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PATH 4:  $4C, 56C+4G, 220C+56G+4K, 560C+220G+56K+40, \dots$

P A M I L Y 4.

P.  
H.  
S.  
M.

$$\begin{aligned}
 & 20A + 10B + 4C + D, \quad 120A + 84B + 56C + 35D + 20E + 10F + 4G + H, \\
 & 364A + 256B + 220C + 165D + 120E + 84F + 56G + 35H + 20I + 10J + 4K + L, \\
 & 816A + 680B + 560C + 45D + 364E + 286F + 220G + 165H + 120I + 84J \\
 & + 56K + 35L + 20M + 10N + 40P, \dots
 \end{aligned}$$

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